GBR-210
Bluetooth GPS Receiver User Manual

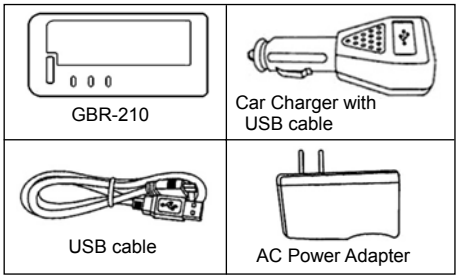
1. GBR-210 Brief Introduction

1.1 Appearance and Component function

1. MFB(Multiple Function Button)
2. Battery Status LED
3. GPS Status LED
4. Bluetooth Status LED
5. Charge Jack(MINI USB)
6. Neck strap eyelet

1.2 How to change Battery

1.3 Accessory



2. Introducing GBR-210

GBR-210 is a GPS receiver with Bluetooth and build-in passive antenna. It has high sensitivity to trace the satellite signal. This device offers the advantage of the SiRF star III chipset with its high sensitivity and low power consumption, and performs the perfect function (it can update the data by one satellite signal if it is under veil temporary, and also can trace the weak signal and keep good receiving performance while it is in city. GBR-210 fits the device with Bluetooth-equipped, such as PDA、Smart phone 、Tablet PC and Notebook PC and so on. It also can satisfy you on car and outdoor recreation navigation.

2.1 Package content

Before use, please confirm the things as below, and contact the agent at once if anything is broken or absent.

- Bluetooth GPS receiver GBR-210
- Battery (3.7V 950mAh Li-ion)
- User Manual
- Car charger
- USB Cable （for power charge）
- AC power adapter

2.2 Power Button control

Power ON: Push down the power button 2 seconds till the Bluetooth status LED light on.
Power OFF: Push down the power button 2 seconds till the Bluetooth status LED light off.
Reset: Push down the power button 8 seconds will clear all the pair records.

2.3 LED indication illustration

LED	Status		Indication	
Blue LED Bluetooth Status LED	Flash (quick)		Paging and pairing mode	
	Flash (slow)	1S/T	Standby mode (1)	
		3S/T	Connected	
Green LED GPS Status LED	Flash		GPS positioned mode	
	Solid		GPS Under positioned mode	
Red LED Battery Status LED	Solid		In use mode	Battery has insufficient charge, please recharge battery
	Solid		In charge mode	Recharging the battery
	Off			Recharge complete

Note: (1) Press the power button slightly to switch standby mode into paging and pairing mode.

2.4 Save power function

After turn on the GBR-210, the device will enter into standby mode if the connection has not completed during 5 minute, and cut off the power when connection is not built in 10 minutes.

3. SPECIFICATION

3.1 Product Features

Electrical Characteristics	
GPS standard	SiRF StarⅢ
GPS Antenna	Built-in ceramic patch antenna
Bluetooth standard	Bluetooth V2.0 +EDR
Operation range	10 meters (33 feet)
Bluetooth Default PIN	0000
Operation time	Up to 12 hrs
Charge time	3~3.5 hrs
Auto Shut-Off	When no active Bluetooth connection has been detected within 10 minutes.
Battery Charging	Mini USB connector (not for data)
TEMPERATURE	
Operating	-10°C ~ 60°C (14°F ~ 140°F)
Storage	-20°C ~ 70°C (-4°F ~ 158°F)
Humidity	Operational up to 95% non-condensing
POWER	
DC supplies	5V~6VDC / 0.6A
BATTERY	
Battery Cell Type	Lithium –ion Rechargeable Battery
MECHANICAL	
Dimension	82.0 mm x 41.0 mm x 14.0 mm

3.2 GPS Specification

Electrical Characteristics	
GPS Chipset	SiRF StarⅢ
Frequency	L1, 1575.42 MHz
C/A Code	1.023 MHz chip rate
Channels	20 channel all-in-view tracking
Accuracy	
Position Horizontal	10 meters, 2D RMS 1-5 meters 2D RMS, WAAS corrected
Velocity	0.1m/sec
Time	1 micro-second synchronized to GPS time
Datum	
Datum	Default: WGS-84
Acquisition Rate	
Hot start	1 sec., average
Warm start	38 sec., average
Cold start	42 sec., average
Reacquisition	0.1 sec. average
Protocol	
GPS Protocol	Default: NMEA 0183 (Secondary: SiRF binary)
GPS Output format	GGA(1sec), GSA(1sec), GSV(5sec), RMC(1sec), GLL, VTG is optional
Dynamic Condition	
Altitude Limit	18,000 meters (60,000 feet) max.
Velocity Limit	515 meters/sec. (1,000 knots) max.
Jerk Limit	20 m/sec**3
Acceleration Limit	Less than 4g

3.3 Bluetooth Specification

Electrical Characteristics	
Bluetooth Chipset	CSR BC4
Frequency	2402MHz to 2480MHz
Standard	Bluetooth V2.0 + EDR
Bluetooth Profile	SPP (Serial Port Profile)
Operation Range	10 meters (33 feet)
Output Power	2dBm typical (class II)
Receive sensitivity	-80dBm typical

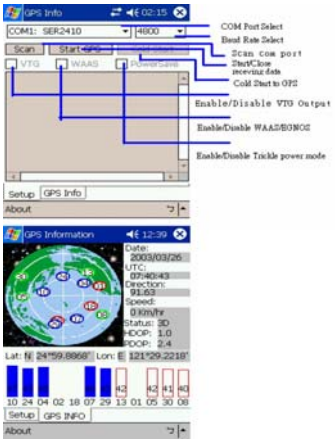
4. Use illustration

4.1. PDA with embedded Bluetooth

1. Power on the GBR-210.
2. Please refer to the user manual of PDA, then start the bluetooth of PDA. Connect to GBR-210 by Bluetooth and input pin code "**0000**" if request.
3. Please check the COM port of buletooth service. (Like as: COM6)
4. Execute the map or navigation software, and choose the right COM port and Baud rate 57600.

4.2. PDA with Bluetooth Compact Flash card

1. Power on the GBR-210.
2. Please refer to the user manual of PDA, then start the bluetooth of PDA. Connect to GBR-210 by Bluetooth and input pin code "**0000**" if request.
3. Please check the COM port of buletooth service. (Like as: COM6)
4. Execute the map or navigation software, and choose the right COM port and Baud rate 57600.



6. Troubleshooting

★ Bluetooth connection can not be built.

A) If this connection has not been recorded, please check the Bluetooth status LED whether flash in the paging and pairing mode or not. If not, please let the GBR-210 enter this mode by push the power button, then try again.
B) Please check the battery status LED, whether battery is insufficient charge. If so, please recharge the battery.

★ GPS can not position in progress.

A) Please check the GPS status LED whether flash normally.
B) If the device still can not position in a long time. Please start the GPSinfo, then cold start. Move to a open site, then try again.
C) Please check the battery status LED, whether battery is insufficient charge. If so, please recharge the battery.

FCC Notices This device complies with part 15 of the FCC rules. Operation is subject to the following two conditions:

(1) This device may not cause harmful interference, and
(2) This device must accept any interference received, including interference that may cause undesired operation.

FCC RF Exposure requirements:
This device and its antenna(s) must not be co-located or operation in conjunction with any other antenna or transmitter.

NOTE: THE MANUFACTURER IS NOT RESPONSIBLE FOR ANY RADIO OR TV INTERFERENCE CAUSED BY UNAUTHORIZED MODIFICATIONS TO THIS EQUIPMENT. SUCH MODIFICATIONS COULD VOID THE USER'S AUTHORITY TO OPERATE THE EQUIPMENT.